

PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of

Keith R. D'ALESSIO et al.

Group Art Unit: 1772

Application No.: 09/430,289

Examiner: S. HON

Filed: October 29, 1999

Docket No.: 100497.02

For: POLYMERIC CONTAINERS FOR 1,1-DISUBSTITUTED MONOMER COMPOSITIONS

REPLY BRIEF

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

The following remarks are directed to the new points of argument raised in the Examiner's Answer mailed July 1, 2004.

At page 8, section 1.b.i of the Examiner's Answer, the Examiner argues that Appellants do not acknowledge that Kvitrud addresses problems in the prior art, where cyanoacrylate is the only specifically identified chemical for containment. Appellants disagree. While cyanoacrylate may be the only positively identified chemical, Kvitrud describes a wide range of materials that required containment, including "medical and dental preparations ... compositions for film developing and other photographic applications, adhesives (such as cyanoacrylates), lubricants and the like." Col. 1, lines 29-36. Kvitrud thus identifies an extensive range of chemicals, not all of which are identified as being photocurable or anionically polymerizable, as are cyanoacrylates. Rather, the common property of the disclosed compositions is that they must be protected from excessive exposure

to light, which is the sole purpose of the containers of Kvitrud. Kvitrud does not teach or suggest that his containers are specifically designed only for cyanoacrylates, or that the containers provide any different results for cyanoacrylates as opposed to any of the other identified compositions. Kvitrud thus does not teach that the container is suitable for use with a 1,1-disubstituted ethylene monomer composition, such as a cyanoacrylate composition, as claimed.

At pages 8-9, section 1.b.ii of the Examiner's Answer, the Examiner argues that Appellants fail to recognize that cyanoacrylate monomers are photocurable (curable by visible light). As support, the Examiner points to col. 17, lines 70-75, of U.S. Patent No. 2,791,504 to Plambeck, Jr. In response, Appellants submit that Plambeck does not disclose that cyanoacrylate monomers are so photocurable as to require their containment in containers such as disclosed in Kvitrud.

Rather, in the relevant passage of Plambeck, the reference teaches that "the photopolymerizable layer may be composed of any addition polymerizable monomer including mixtures of two, three or more monomers and any initiator photosensitive to actinic light either single or in admixture with other initiators." See Plambeck at col. 17, lines 55-59 (emphasis added). Plambeck then, and only then, goes on to describe a wide range of monomers that includes a cyanoacrylate monomer as one example, in the passage cited by the Examiner. Plambeck does not disclose that cyanoacrylate monomers are photocurable by themselves, or that such cyanoacrylate monomers are so photocurable that they must be contained in special containers. Plambeck only discloses that cyanoacrylate monomers are photocurable, when mixed with an initiator photosensitive to actinic light either single or in admixture with other initiators. Plambeck thus does not support the Examiner's position and thus does not teach that the containers of Kvitrud are specifically tailored for containing cyanoacrylate monomers.

At page 9, section 2.a.i of the Examiner's Answer, the Examiner states that the Declarations Under 37 C.F.R. §1.132 filed by Appellants merely clarify that post-halogenation does not provide absolute barrier properties. The Examiner is correct, but fails to acknowledge the criticality of that showing. As described in the Examiner's Answer itself, at page 5, Fehn is cited by the Examiner for the teaching that post-halogenation provides "a Teflon-like, nonsticky surface with improved resistance to the escape of volatile organic liquids, and a barrier against containment migration into the (contents of the) container ." The basis of the Examiner's rejection is thus that post-halogenation provides improved barrier properties, and that one of ordinary skill in the art would have recognized those improved barrier properties as an advantage and thus as a reason to combine Fehn and Kvitrud.

However, Appellants' Declarations disprove the Examiner's position. The Declarations demonstrate that the post-halogenation process does not provide absolute physical barriers to chemical species, and in fact exhibit moisture vapor transmission rates substantially equal to transmission rates of non-halogenated materials. Thus, while the Examiner argues that Fehn provides increased barrier properties beyond that provided by the container matrix itself, the Declarations demonstrate that the process of Fehn does not provide a reduction in the moisture vapor transmission rate, and thus would not have provided motivation to combine the teachings of Fehn and Kvitrud.¹

At pages 9-10, section 2.a.ii of the Examiner's Answer, the Examiner argues that the post-halogenation of Fehn would be useful in Kvitrud, because the post-halogenation would prevent migration of contaminants that could shorten the shelf-life of the contained materials. However, that position is irrelevant. As Appellants have previously argued, Fehn employs

¹ Although Appellants disclose in their application that Fehn is an exemplary process for post-halogenation, that disclosure does not defeat Appellants' position. Rather, the process of Fehn provides the benefits of the claimed invention by a mechanism other than reduced moisture vapor transmission through the container.

the post-halogenation process because Fehn is directed to containers made from recycled materials that contain contaminants. Kvitrud, however, does not make his containers from recycled materials. Thus, the container materials of Kvitrud would not be expected to include the contaminants that are of concern to Fehn, which could migrate into the contents. Thus, there would have been no reason to combine Fehn's protection from recycled material contaminants with Kvitrud's virgin materials that do not include contaminants. The only motivation for such a combination arises from Appellants' disclosure, which is improper.

At page 10, section 2.b.i of the Examiner's Answer, the Examiner argues that Appellants' Declarations have not demonstrated that the post-halogenation is ineffective at reducing transmission of contaminants or the contained cyanoacrylate. The response is that Appellants need not make any such showing. As described above, Fehn was cited specifically for improved barrier properties. The Declarations demonstrate that such improved barrier properties are not provided, at least as to moisture vapor transmission, which is known to provide initiation of the contained cyanoacrylate. That fact alone destroys the asserted motivation for combining Kvitrud and Fehn, and cannot be ignored by the Examiner.

At pages 10-12, sections 2.c.i-iii of the Examiner's Answer, the Examiner argues that Kvitrud and Fehn are analogous art, because they are both directed to container barrier properties and "the containment and preservation of the integrity of the original contents." Applicants disagree, because the proposition is stated too broadly by the Examiner. If the relevant art was stated that broadly, then art directed to TYVEK® envelopes would also be considered analogous, because such envelopes contain and preserve the integrity of their contents by avoiding ripping of the envelopes. In the present case, Kvitrud is directed to preventing light (specifically, actinic radiation) from entering the containers, while Fehn is directed to avoiding problems resulting from contaminants in recycled materials. Fehn does

not teach or suggest that its solution would affect actinic radiation transmission, and Kvitrud does not teach or suggest that the container material includes contaminants, which must be isolated. The relevant art for Kvitrud is prevention of light/radiation transmission, which is different from the relevant art of Fehn. The references are thus directed to non-analogous art, and are improperly combined.

At page 12, section 2.d.i of the Examiner's Answer, the Examiner argues that Kvitrud and Fehn are properly combined, because Fehn provides a barrier to a wide variety of contaminants. However, that reason is merely a hindsight justification for the combination. Obviousness must be assessed based on the references themselves. In this case, Kvitrud states only one problem with the prior art containers -- they allow too much actinic radiation to enter the containers. Kvitrud does not identify problems resulting from contaminants, because Kvitrud does not specifically utilize recycled materials. Kvitrud solves the actinic radiation transmission problem, and does not describe the presences of any other contaminant problems. Indeed, Fehn also does not describe contaminant problems in conventional containers. Fehn's barrier properties are required only for the recycled material containers. Because Kvitrud does not use recycled materials, the post-halogenation barrier of Fehn would only be an additional, unnecessary process step deemed unnecessary within the teachings of Kvitrud.

At page 12, section 2.d.ii of the Examiner's Answer, the Examiner argues that neither Kvitrud nor Fehn teach adverse effects of fluorination, and thus a combination of the references is proper. Applicants disagree. The burden is on the Examiner to demonstrate a proper combination of references, based on a motivation for their combination and an expectation of success. Appellants' argument was that no expectation of success existed, at least because neither reference taught whether an adverse reaction might occur between the post-halogenation layer of Fehn and the reactive contents of Kvitrud. Merely because two

references do not specifically teach against their combination, does not render them properly combinable; the burden is on the Examiner to establish the motivation to combine the references, which was not met in the present application.

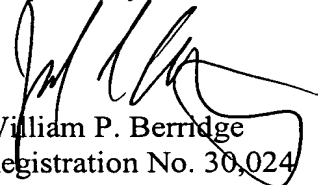
At page 13, section 2.d.iii of the Examiner's Answer, the Examiner argues that the desire for improved barrier properties for marketing purposes supports combination of Kvitrud and Fehn. The response is that the Examiner over-simplifies or misapprehends Appellants' argument. In the Appeal Brief, Appellants argue that the combination was improper, because the references do not teach or suggest that the containers of Kvitrud required or would even benefit from the improved barrier properties of Fehn. The basis of Appellants' argument was that neither reference taught or suggested that the incorporation of Fehn's barrier layer would provide any benefit whatsoever to Kvitrud. That is, Kvitrud solved his described actinic radiation problem, and Fehn addressed only contaminants present in recycled material. Neither reference teaches or suggests that the barrier layer of Fehn would provide any added shelf-life to the non-recycled material of Kvitrud.

At pages 13-14, section 2.e.i-ii of the Examiner's Answer, the Examiner addresses Appellants' arguments that some of the container materials of Kvitrud could not be readily post-halogenated. In response, Appellants acknowledge the disclosure by Fluoro-Seal that such containers can be fluorinated, though some are more difficult than others. Appellants' argument was that Kvitrud and Fehn would not be readily combined, at least because of the acknowledged difficulties in post-fluorinating the disclosed materials.

At pages 14-15 of the Examiner's Answer, the Examiner addresses Appellants' arguments with respect to the claims of Group II, and the references Kvitrud and Walles. The arguments, and Appellants' responses, parallel those described above and are not repeated here.

It is respectfully submitted that the remaining points of argument set forth in the Examiner's Answer were fully addressed in Appellants' Appeal Brief. For the reasons set forth herein and in the Appeal Brief, it is respectfully requested that the rejections of the claims under 35 U.S.C. §103(a) be reversed.

Respectfully submitted,



William P. Berridge
Registration No. 30,024

Joel S. Armstrong
Registration No. 36,430

WPB:JSA

Date: September 1, 2004

OLIFF & BERRIDGE, PLC
P.O. Box 19928
Alexandria, Virginia 22320
Telephone: (703) 836-6400

<p>DEPOSIT ACCOUNT USE AUTHORIZATION Please grant any extension necessary for entry; Charge any fee due to our Deposit Account No. 15-0461</p>
--